

2016 Massachusetts HIV/AIDS Epidemiologic Profile

Detailed Data Tables: Racial and Ethnic Minorities

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Disease and Laboratory Sciences, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2016, this resulted in the removal of 4,913 HIV/AIDS cases, of which 1,099 have died and 3,814 were living. These persons living with HIV infection may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV infection, regardless of location at diagnosis, is the basis for MDPH service planning. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual risk category for men; those cases have been reassigned to the no identified risk (NIR) category. The presumed heterosexual risk category was used with the intention of identifying HIV risk for women when sex with men is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. The rationale for the application of the presumed heterosexual risk category to women only has been addressed in the MDPH Office of HIV/AIDS report "Intersecting Risks: HIV Infection among Heterosexual Women and Men in Massachusetts." (2010) http://www.mass.gov/Eoohhs2/docs/dph/aids/intersecting_risks.pdf. The CDC reports men diagnosed with HIV infection who report sex with women as their only risk factor, without corresponding partner risk or HIV status information, in the NIR category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for men in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual risk categories for women.

Table 1. Total number and percentage distribution of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2015: Massachusetts

	N	%
People Living with HIV Infection	20,272	60%
<i>People Living with HIV Infection and First Diagnosed in Another U.S. State Now Living in MA</i>	3,814	-- ²
People Reported with HIV or AIDS Who Are Deceased	13,729	40%
Total Number of People Reported with HIV Infection or AIDS²	34,001	100%

¹ Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts; therefore people living with HIV infection and first diagnosed in another U.S. state are not included in the total number of people reported with HIV infection or AIDS.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 2. Number and percentage distribution of people living with HIV infection on December 31, 2015 by sex at birth, race/ethnicity, place of birth and health service region: Massachusetts¹

People Living with HIV infection on 12/31/15		
Sex at birth:	N	%
Men	14,439	71%
Women	5,833	29%
Race/Ethnicity:	N	%
White, non-Hispanic	8,609	42%
Black, non-Hispanic	6,083	30%
Hispanic/Latino	5,029	25%
Asian/Pacific Islander	399	2%
Other/Unknown	152	1%
Place of Birth:	N	%
US	13,043	64%
Puerto Rico/US Dependency ²	1,983	10%
Non-US	5,246	26%
Health Service Region ³ :	N	%
Boston HSR	6,379	31%
Central HSR	1,708	8%
Metro West HSR	2,999	15%
Northeast HSR	3,278	16%
Southeast HSR	2,803	14%
Western HSR	2,191	11%
Prison ⁴	879	4%
Total⁵	20,272	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

² Ninety-eight percent of people living with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 2% were born in US minor outlying areas, <1% were born in the US Virgin Islands, and <1% were born in Guam.

³ Reflects the health service region of a person's residence at the time of report (not necessarily current residence); See Epidemiologic Profile General Appendices, Health Service Region Maps, available at http://www.mass.gov/dph/aids/research/profile2005/app5_hrs_maps.pdf for configuration of health service regions

⁴ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons are not an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. The prisons category represents persons who were diagnosed with HIV infection while in a correctional facility. These data do not reflect current incarceration status.

⁵ Total includes 35 people living with HIV infection with unknown HSR; Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding). Data are current as of 3/1/16 and may be subject to change

Table 3. Number and percentage distribution of people living with HIV infection by exposure mode: Massachusetts¹

People living with HIV infection on 12/31/15		
Exposure mode:	N	%
Male-to-male sex (MSM)	7,683	38%
Injection drug use (IDU)	3,560	18%
MSM/IDU	701	3%
Receipt of blood/blood products/other	65	<1%
Pediatric	348	2%
Total heterosexual sex (HTSX)	2,819	14%
• HTSX w/ an injection drug user	891	4%
• HTSX w/ bisexual men (women only)	44	<1%
• HTSX w/ a person w/ HIV or AIDS	49	<1%
• Other HTSX ²	1,835	9%
Total undetermined/other	5,097	25%
• Presumed heterosexual sex ³	1,894	9%
• Undetermined/other ⁴	3,202	16%
Total	20,272	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

² Includes heterosexual sex with a person who received blood/blood products.

³ Includes woman having sex with a man of unknown HIV status or risk. This category is limited to women only.

⁴ Includes man having sex with a woman of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 4. Number and percentage distribution of people living with HIV infection on December 31, 2015 by sex at birth and race/ethnicity: Massachusetts¹

Race/Ethnicity:	Men		Women	
	N	%	N	%
White, non-Hispanic	7,195	50%	1,414	24%
Black, non-Hispanic	3,388	23%	2,695	46%
Hispanic/Latino	3,444	24%	1,585	27%
Asian/Pacific Islander	313	2%	86	1%
Other/Unknown	99	1%	53	1%
Total	14,439	100%	5,833	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding). Data are current as of 3/1/16 and may be subject to change

Table 5. Number and percentage distribution of people diagnosed with HIV infection by sex at birth and race/ethnicity: Massachusetts¹, 2012–2014²

Race/Ethnicity:	Men		Women		State Total	
	N	%	N	%	N	%
White (NH)	649	43%	96	19%	745	37%
Black (NH)	344	23%	269	52%	613	30%
Hispanic/Latino	445	29%	135	26%	580	29%
API	59	4%	13	3%	72	4%
Other/Unknown	13	1%	4	1%	17	1%
Total	1,510	100%	517	100%	2,027	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding). Data are current as of 3/1/16 and may be subject to change

Explanation of rates

A “rate” of a disease per 100,000 population is a useful way to compare groups that have substantially different population sizes. For example, the number of people living with HIV infection on December 31, 2015 who are Hispanic/Latino, is 5,029 whereas the number of people living with HIV infection who are white (non-Hispanic) is 8,609. Although the number of people living with HIV infection who are Hispanic/Latino in Massachusetts is smaller than the number of people living with HIV infection who are white (non-Hispanic), there are fewer people of Hispanic/Latino ethnicity living in Massachusetts than white (non-Hispanic) individuals. Hispanic/Latino individuals represent 10% of the Massachusetts population compared to white (non-Hispanic) individuals who represent 78% of the population¹. If HIV/AIDS had the same impact on the Hispanic/Latino population of the state as on the white (non-Hispanic), then there should be eight times as many cases in white (non-Hispanic) individuals, but there are less than twice as many. By calculating a rate, it is evident that the number of people living with HIV infection for every 100,000 Hispanic/Latino individuals in Massachusetts is much higher than the rate for every 100,000 white (non-Hispanic) individuals. This is calculated by dividing the number of people living with HIV infection by the population of interest (the total number of Hispanic/Latino individuals in Massachusetts, for example) and multiplying by 100,000. (See example 1.A below).

¹ The denominators for prevalence calculations are based on year 2010 population estimates from the MDPH Bureau of Health Information, Statistics, Research and Evaluation

Example 1.A: Calculation of crude HIV/AIDS prevalence rate for white (non-Hispanic) individuals, Massachusetts (167.7 per 100,000)

$$\begin{aligned}\text{Crude HIV/AIDS prevalence rate for white (non-Hispanic) individuals} &= (\text{number of white (non-Hispanic) individuals living with HIV infection} \div \text{population size of white (non-Hispanic) individuals}) \times 100,000 \\ &= (8,609 / 5,132,633) \times 100,000 \\ &= (.0016773) \times 100,000 \\ &= \mathbf{167.7}\end{aligned}$$

However, sometimes, in addition to the population size being different, the age composition of the populations is different. In Massachusetts, black (non-Hispanic) and Hispanic/Latino populations are generally younger than the white (non-Hispanic) population. The median age of black (non-Hispanic) people (29.7 years) and Hispanic/Latino people (24.5 years) is younger than that of white (non-Hispanic) people (38.8 years). Therefore, an appropriate comparison requires “age-adjustment” of the HIV/AIDS prevalence rate to get a true comparison of the impact of the disease across racial/ethnic groups without an effect from the differences in age composition. Age-adjustment of rates minimizes the distortion created by differences in age composition.

Age-adjusted rates are calculated by multiplying the age-specific rates for a given population by the age distribution of a standard population. The weighted age-specific rates are then added to produce the adjusted rate for all ages combined. (See example 1.B below).

Example 1.B: Calculation of age-adjusted HIV/AIDS prevalence rate for white (non-Hispanic) individuals, Massachusetts (140.3 per 100,000)

A	B	C	D	E
Age group (in years)	# of prevalent HIV/AIDS cases	Population (2010)	2000 US standard population weight	Age-adjusted rate $((B \div C \times D) \times 100,000)$
<1	0	48,010	0.013818	0.00
1-4	0	200,452	0.055317	0.00
5-14	5	571,967	0.145565	0.13
15-24	73	677,899	0.138646	1.49
25-34	536	603,245	0.135573	12.05
35-44	1042	676,064	0.162613	25.06
45-54	3100	841,315	0.134834	49.68
55-64	2884	697,852	0.087247	36.06
65-74	819	403,518	0.066037	13.40
75-84	138	275,380	0.044842	2.25
85+ years	12	136,931	0.015508	0.14
Total	8,609	5,132,633	1.000000	140.3

To see the effect of age-distribution on prevalence rates see Tables 6 through 8 below for a comparison of crude and age-adjusted rates by race/ethnicity.

Table 6. Crude and age-adjusted HIV prevalence rate per 100,000 population¹ on December 31, 2015 by race/ethnicity and sex at birth: Massachusetts²

State Total (N=20,272):	Crude rate per 100,000	Age-adjusted rate per 100,000
White, non-Hispanic	167.7	140.3
Black, non-Hispanic	1,464.4	1,512.2
Hispanic/Latino	801.2	1,059.4
Asian/Pacific Islander	110.9	114.0
Total prevalence	309.6	278.4
Men (N=14,439):	Crude rate per 100,000	Age-adjusted rate per 100,000
White, non-Hispanic	290.2	241.3
Black, non-Hispanic	1,688.6	1,811.2
Hispanic/Latino	1,117.8	1,562.5
Asian/Pacific Islander	181.9	187.3
Total prevalence among men	456.0	408.5
Women (N=5,833):	Crude rate per 100,000	Age-adjusted rate per 100,000
White, non-Hispanic	53.3	46.1
Black, non-Hispanic	1,254.9	1,268.7
Hispanic/Latina	496.0	631.5
Asian/Pacific Islander	45.8	47.4
Total prevalence among women	172.5	158.3
¹ The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation ² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts. Data Source: MDPH HIV/AIDS Surveillance Program; Data are current as of 3/1/16 and may be subject to change		

Table 7. Crude and age-adjusted rates of diagnosis of HIV infection per 100,000 population¹ by race/ethnicity and sex at birth: Average annual rate, Massachusetts², 2012–2014³

State total (N=2,027):	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic)	4.8	4.8
Black (non-Hispanic)	49.2	48.5
Hispanic/Latino	30.8	31.3
Asian/Pacific Islander	6.7	5.7
Total rate	10.3	10.3
Men (N=1,510):	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic) Men	8.7	8.6
Black (non-Hispanic) Men	57.2	57.3
Hispanic/Latino Men	48.1	48.5
Asian/Pacific Islander Men	11.4	9.7
Total rate among men	15.9	15.6
Women (N=517):	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic) Women	1.2	1.2
Black (non-Hispanic) Women	41.8	40.9
Hispanic/Latina Women	14.1	15.2
Asian/Pacific Islander Women	2.3	2.1
Total rate among women	5.1	5.1
¹ The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation ² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts. ³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999. Data Source: MDPH HIV/AIDS Surveillance Program; Data are current as of 3/1/16 and may be subject to change		

Table 8. Crude and age-adjusted rates of death among people reported with HIV/AIDS per 100,000 population¹ by race/ethnicity and sex at birth: average annual rate, Massachusetts², 2012–2014

State Total (N=716):	Crude Rate per 100,000	Age-Adjusted Rate per 100,000
White (non-Hispanic)	2.2	1.8
Black (non-Hispanic)	15.1	16.0
Hispanic/Latino	9.0	12.3
Mass. Total Rate	3.6	3.2
Men (N=520):	Crude Rate per 100,000	Age-Adjusted Rate per 100,000
White (non-Hispanic) Men	3.6	2.9
Black (non-Hispanic) Men	19.3	21.9
Hispanic/Latino Men	13.5	20.1
Mass. Total Rate Among Men	5.5	4.8
Women (N=196):	Crude Rate per 100,000	Age-Adjusted Rate per 100,000
White (non-Hispanic) Women	1.0	0.8
Black (non-Hispanic) Women	11.2	11.3
Hispanic/Latina Women	4.7	5.9
Mass. Total Rate Among Women	1.9	1.7

¹ The denominators for rate calculations are from the Massachusetts (Department of Public Health) Modified Age, Race/Ethnicity, & Sex Estimates 2010; all rates are age-adjusted using the 2000 US standard population.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, Office of HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being diagnosed and reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program; Data are current as of 3/1/16 and may be subject to change

Table 9. Number and percentage distribution of people diagnosed with HIV infection by race/ethnicity¹ and exposure mode: Massachusetts², 2012–2014³

Exposure mode:	White (NH)		Black (NH)		Hispanic/Latino	
	N	%	N	%	N	%
Male-to-male sex (MSM)	492	66%	126	21%	250	43%
Injection drug use (IDU)	43	6%	14	2%	46	8%
MSM/IDU	37	5%	-- ⁶	-- ⁶	-- ⁶	-- ⁶
Heterosexual sex	-- ⁶	-- ⁶	67	11%	51	9%
Other	-- ⁶	-- ⁶	-- ⁶	-- ⁶	-- ⁶	-- ⁶
Total undetermined/other	146	20%	394	64%	222	38%
• Presumed heterosexual sex ⁴	29	4%	177	29%	63	11%
• Undetermined ⁵	117	16%	217	35%	159	27%
Total⁷	745	100%	613	100%	580	100%

¹ Data for Asian/Pacific Islander, American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

⁴ Includes woman having sex with a man of unknown HIV status or risk. This category is limited to women only.

⁵ Includes man having sex with a woman of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁶ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

⁷ Total includes numbers suppressed for the assurance of confidentiality.

(NH) = Non-Hispanic

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 10. Number and percentage distribution of men diagnosed with HIV infection by race/ethnicity¹ and exposure mode: Massachusetts², 2012–2014³

Exposure mode:	White (NH)		Black (NH)		Hispanic/Latino	
	N	%	N	%	N	%
Male-to-male sex (MSM)	492	76%	126	37%	250	56%
Injection drug use (IDU)	17	3%	11	3%	32	7%
MSM/IDU	37	6%	-- ⁵	-- ⁵	-- ⁵	-- ⁵
Heterosexual sex	8	1%	26	8%	22	5%
Other	0	0%	-- ⁵	-- ⁵	-- ⁵	-- ⁵
Undetermined ⁴	95	15%	171	50%	130	29%
Total⁶	649	100%	344	100%	445	100%

¹ Data for Asian/Pacific Islander, American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

⁴ Includes men having sex with a woman of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

⁶ Total includes numbers suppressed for the assurance of confidentiality.

(NH) = Non-Hispanic

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 11. Number and percentage distribution of women diagnosed with HIV infection by race/ethnicity¹ and exposure mode: Massachusetts², 2012–2014³

Exposure mode:	White (NH)		Black (NH)		Hispanic/Latina	
	N	%	N	%	N	%
Injection drug use	26	27%	-- ⁷	-- ⁷	14	10%
Heterosexual sex	18	19%	-- ⁷	-- ⁷	29	21%
Total undetermined/other	51	53%	223	83%	92	68%
• Presumed heterosexual sex ⁴	29	30%	177	66%	63	47%
• Undetermined ⁵	22	23%	46	17%	29	21%
Total⁶	96	100%	269	100%	135	100%

¹ Data for Asian/Pacific Islander, American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

⁴ Includes woman having sex with a man of unknown HIV status or risk. This category is limited to women only.

⁵ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁶ Totals include pediatric and blood/blood products exposure modes.

⁷ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

(NH) = Non-Hispanic

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/15

Table 12. Number and percentage distribution of people diagnosed with HIV infection by race/ethnicity¹ and place of birth: Massachusetts², 2012–2014³

Race/Ethnicity:	US		Puerto Rico/ US Dependency ⁴		Non-US	
	N	%	N	%	N	%
White (NH)	673	90%	-- ⁵	<1%	70	9%
Black (NH)	270	44%	0	0%	343	56%
Hispanic/Latino	209	36%	132	23%	239	41%
API	12	17%	-- ⁵	-- ⁵	60	83%
Total⁷	1,180	58%	134	7%	713	35%

¹ Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

⁴ All people diagnosed with HIV infection from 2012–2014 who were born in a US dependency were born in Puerto Rico.

⁵ Totals include people of American Indian/Alaska Native and Other/Unknown race/ethnicity.

⁶ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

⁷ Total includes numbers suppressed for the assurance of confidentiality.

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 13. Number and percentage distribution of men diagnosed with HIV infection by race/ethnicity¹ and place of birth: Massachusetts², 2012–2014³

	US		Puerto Rico/ US Dependency ⁴		Non-US	
Race/Ethnicity:	N	%	N	%	N	%
White (NH)	587	90%	0	0%	62	10%
Black (NH)	186	54%	0	0%	158	46%
Hispanic/Latino	161	36%	93	21%	191	43%
API	10	17%	0	0%	49	83%
All Men⁵	957	63%	93	6%	460	30%

¹ Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

⁴ All people diagnosed with HIV infection from 2012–2014 who were born in a US dependency were born in Puerto Rico.

⁵ Totals include people of American Indian/Alaska Native and Other/Unknown race/ethnicity.

⁶ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 14. Number and percentage distribution of women diagnosed with HIV infection by race/ethnicity¹ and place of birth: Massachusetts², 2012–2014³

Race/Ethnicity:	US		Puerto Rico/ US Dependency ⁴		Non-US	
	N	%	N	%	N	%
White (NH)	86	90%	2	2%	8	8%
Black (NH)	84	31%	0	0%	185	69%
Hispanic/Latino	48	36%	39	29%	48	36%
All Women⁵	223	43%	41	8%	253	49%

¹ Data for Asian/Pacific Islander, American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

⁴ All people diagnosed with HIV infection from 2012–2014 who were born in a US dependency were born in Puerto Rico.

⁵ Totals include people of American Indian/Alaska Native and Other/Unknown race/ethnicity.

⁶ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

(NH) = Non-Hispanic

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 15. Number and percentage of black (non-Hispanic) individuals diagnosed with HIV infection born outside the US by leading countries of birth: Massachusetts¹, 2012–2014²

Rank	Country of Birth	Number of HIV DX ³ among Non-US born	Percent of HIV DX among all Non-US born Black (non-Hispanic) individuals
1	Haiti	107	31%
2	Uganda	38	11%
3	Cape Verde	35	10%
4	Jamaica	24	7%
5	Nigeria	22	6%
6	Kenya	19	6%
7	Cameroon	16	5%
8	Ghana	16	5%
9	Liberia	8	2%
10	Ethiopia	7	2%
	All others	51	15%
	Massachusetts	343	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ HIV DX = HIV diagnoses

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); Data are current as of 3/1/16 and may be subject to change

Table 16. Number and percentage of Hispanic/Latino individuals diagnosed with HIV infection born outside the US by leading countries of birth: Massachusetts¹, 2012–2014²

Rank	Country of Birth	Number of HIV DX ³ among Non-US born	Percent of HIV DX among all Non-US born Hispanic/Latino individuals
1	Dominican Republic	53	22%
2	Brazil	43	18%
3	Colombia	28	12%
4	Guatemala	26	11%
5	Honduras	25	11%
	All others	64	27%
	Massachusetts	239	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ HIV DX = HIV diagnoses

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); Data are current as of 3/1/16 and may be subject to change

Table 17. Number and percentage distribution of people living with HIV infection on December 31, 2015 by current age and race/ethnicity:¹ Massachusetts²

Age in years	White NH		Black NH		Hispanic/Latino		State Total	
	N	%	N	%	N	%	N	%
Under 13	3	<1%	16	<1%	4	<1%	24	<1%
13 to 19	9	<1%	41	1%	23	<1%	76	<1%
20 to 24	66	1%	115	2%	106	2%	298	1%
25 to 29	228	3%	220	4%	206	4%	693	3%
30 to 34	308	4%	299	5%	308	6%	949	5%
35 to 39	469	5%	408	7%	414	8%	1,354	7%
40 to 44	573	7%	567	9%	547	11%	1,764	9%
45 to 49	1,158	13%	916	15%	837	17%	3,009	15%
50 to 54	1,942	23%	1,116	18%	990	20%	4,142	20%
55 to 59	1,719	20%	1,020	17%	813	16%	3,609	18%
60+	2,134	25%	1,365	22%	781	16%	4,354	21%
Total	8,609	100%	6,083	100%	5,029	100%	20,272	100%

¹ Data for American Indian/Alaska Native, Asian/Pacific Islander and Other/Unknown race/ethnicity are not presented due to small numbers

² Effective January 1, 2011, the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

NH = non-Hispanic

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 18. Number and percentage distribution of people diagnosed with HIV infection by age at diagnosis and race/ethnicity:¹ Massachusetts,² 2012–2014³

Age in years	White NH		Black NH		Hispanic/Latino		State Total	
	N	%	N	%	N	%	N	%
Under 13	1	<%	6	1%	0	0%	7	<%
13 to 19	11	1%	20	3%	19	3%	55	3%
20 to 24	85	11%	65	11%	82	14%	239	12%
25 to 29	96	13%	73	12%	98	17%	291	14%
30 to 34	88	12%	81	13%	90	16%	272	13%
35 to 39	66	9%	61	10%	64	11%	198	10%
40 to 44	79	11%	64	10%	69	12%	227	11%
45 to 49	136	18%	80	13%	73	13%	295	15%
50 to 54	87	12%	70	11%	36	6%	202	10%
55 to 59	55	7%	39	6%	28	5%	124	6%
60+	41	6%	54	9%	21	4%	117	6%
Total	745	100%	613	100%	580	100%	2,027	100%

¹ Data for American Indian/Alaska Native, Asian/Pacific Islander and Other/Unknown race/ethnicity are not presented due to small numbers

² Effective January 1, 2011, the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

NH = non-Hispanic

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 19. Number and percentage distribution of people diagnosed with HIV infection under age 25 years and total population under age 25 years by race/ethnicity:¹ Massachusetts², 2012–2014³

	White NH		Black NH		Hispanic/Latino		State Total ⁴	
	N	%	N	%	N	%	N	%
HIV Infection Diagnoses	97	32%	91	30%	101	34%	301	100%
Total Population	1,498,328	71%	165,032	8%	298,888	14%	2,096,538	100%

¹ Data for American Indian/Alaska Native, Asian/Pacific Islander and Other/Unknown race/ethnicity are not presented due to small numbers.

² Effective January 1, 2011, the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

NH = non-Hispanic

⁴ Totals include people of American Indian/Alaska Native and Other/Unknown race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change; year 2010 population estimates are from the Massachusetts (Department of Public Health) Modified Age, Race/Ethnicity, & Sex Estimates 2010

Table 20. Percentage distribution of people diagnosed with HIV infection by Health Service Region (HSR)¹ and race/ethnicity: Massachusetts², 2012–2014³

	White (NH)	Black (NH)	Hispanic/ Latino	API	Total
HSR	%	%	%	%	N
Boston HSR	31%	33%	31%	3%	606
Central HSR	37%	36%	23%	4%	146
Metro West HSR	42%	35%	16%	7%	310
Northeast HSR	38%	25%	32%	4%	392
Southeast HSR	47%	31%	20%	1%	307
Western HSR	32%	23%	43%	1%	241
Prisons ⁴	9%	36%	55%	0%	11
Mass. Total	37%	30%	29%	4%	2,027

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence). See Epidemiologic Profile General Appendices, Health Service Region Maps, available at

http://www.mass.gov/dph/aids/research/profile2005/app5_hrs_maps.pdf, for configuration of health service regions.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

⁴ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility. These data do not reflect current incarceration status.

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 21. Number and percentage distribution of people living with HIV infection on December 31, 2015 by Health Service Region (HSR)¹ and race/ethnicity: Massachusetts²

HSR	White (NH)		Black (NH)		Hispanic/ Latino		API		Other/Und.		Total
	N	%	N	%	N	%	N	%	N	%	N
Boston	2,466	39%	2,417	38%	1,338	21%	113	2%	45	1%	6,379
Central	703	41%	450	26%	512	30%	31	2%	12	1%	1,708
Metro West	1,461	49%	1,026	34%	411	14%	85	3%	16	1%	2,999
Northeast	1,373	42%	821	25%	939	29%	119	4%	26	1%	3,278
Southeast	1,658	59%	656	23%	439	16%	21	1%	29	1%	2,803
Western	688	31%	431	20%	1,034	47%	23	1%	15	1%	2,191
Prison ³	249	28%	275	31%	342	39%	5	1%	8	1%	879
Total⁴	8,609	42%	6,083	30%	5,029	25%	399	2%	152	1%	20,272

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence). See Epidemiologic Profile General Appendices, Health Service Region Maps, available at

http://www.mass.gov/dph/aids/research/profile2005/app5_hrs_maps.pdf for configuration of health service regions.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV infection while in a correctional facility. These data do not reflect current incarceration status.

⁴ Mass. total includes 35 persons living with HIV infection with unknown residence at time of report.

(NH)= Non-Hispanic , API = Asian/Pacific Islander, Other/Und. = Other/Undetermined

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data are current as of 3/1/16 and may be subject to change

Table 22. Rank of the ten cities/towns¹ in Massachusetts² by the highest proportion of black (non-Hispanic) individuals among HIV infection diagnoses (HIV DX): 2012–2014³

Rank	City/Town	Number of HIV DX among black non-Hispanic individuals	Percent of Total HIV DX
1	Brockton	61	76%
2	Waltham	19	58%
3	Malden	17	55%
4	Worcester	38	49%
5	Lynn	22	43%
6	Cambridge	14	38%
7	Boston	192	36%
8	Everett	9	31%
9	Lowell	23	29%
10	Springfield	38	27%
	All others	180	19%
	Massachusetts	613	29%

¹ Cities with fewer than 20 HIV infection diagnoses from 2012–2014 are excluded. Note: reflects the city/town of a person's residence at the time of report (not necessarily current residence). People diagnosed while at a correctional facility are not included

² Effective January 1, 2011, the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999. Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); Data are current as of 3/1/16 and may be subject to change

Table 23. Rank of the ten cities/towns¹ in Massachusetts² by the highest proportion of Hispanic/Latino individuals among HIV infection diagnoses (HIV DX): 2012–2014³

Rank	City/Town	Number of HIV DX among Hispanic/Latino individuals	Percent of Total HIV DX
1	Holyoke	20	83%
2	Lawrence	50	79%
3	Revere	16	59%
4	Chelsea	20	56%
5	Springfield	70	50%
6	Everett	12	41%
7	New Bedford	18	38%
8	Cambridge	11	30%
9	Lowell	23	29%
10	Boston	152	28%
	All others	188	19%
	Massachusetts	580	30%

¹ Cities with fewer than 20 HIV infection diagnoses from 2012–2014 are excluded. Note: reflects the city/town of a person's residence at the time of report (not necessarily current residence). People diagnosed while at a correctional facility are not included

² Effective January 1, 2011, the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases for all years presented that were first diagnosed in another state before being reported in Massachusetts.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999. Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); Data are current as of 3/1/16 and may be subject to change

Table 24. Percentage and total number of BRFSS respondents ages 18–64¹ years reporting condom use at last sexual encounter: Massachusetts, 2013–2014

	% Used Condom	Total n ²
Total:	25.2 (21.7 – 28.6)	2,512
Sex:	% Used Condom	Total n
Male	26.7 (21.7 – 31.8)	1,049
Female	23.5 (18.7 – 28.3)	1,463
Race/Ethnicity:	% Used Condom	Total n
White (non-Hispanic)	24.0 (20.0 – 28.1)	2,056
Black (non-Hispanic)	31.4 (19.0 – 43.7)	140
Hispanic/Latino	28.0 (16.4 – 39.6)	190
Number of Partners:	% Used Condom	Total n
1	22.0 (18.7 – 25.4)	2348
2	64.7 (45.4 – 83.9)	75
3+	36.5 (17.3 – 55.7)	79
Sex of Partner:	% Used Condom	Total n
Male Respondent Reporting Sex with Male	52.4 (28.7 – 76.1)	61
Male Respondent Reporting Sex with Female	24.8 (19.8 – 29.9)	978
Female Respondent Reporting Sex with Female	-- ³	26
Female Respondent Reporting Sex with Male	24.1 (19.3 – 29.0)	1,434

¹ Only asked of adults reporting sex (including oral, vaginal, or anal sex) in the past year² Only respondents with known values are included in this table; Column sub-totals may not equal overall total due to missing values³ Unstable estimates with N < 50 or relative standard error >30% are suppressed

Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2013–2014